WIRELESS ACCESS POINT (P/N 364711-01)
USER'S GUIDE

1307725 REV.0

Innovations in Home Living.

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(800)-321-2343

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The On-Q Home Wireless Access Point includes components from ©Motorola Inc., which maintains the following compliances:

FCC Compliance Class B Digital Device
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:
. Reorient or relocate the receiving antenna.
. Increase the separation between the equipment and receiver.
. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
. Consult the dealer or an experienced radio/TV technician for help.
CAUTION: Changes or modifications not expressly approved by Motorola for compliance could void the user's authority to operate the equipment.

Canadian Compliance
This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Cet appareil numérique de la classe B respects toutes les exigences du Règlement sur le matériel brouilleur du Canada.

FCC Declaration of Conformity
Motorola, Inc., Broadband Communications Sector, 101 Tournament Drive, Horsham, PA 19044, 1-215-323-1000, declares under sole responsibility that the WA840G, the Motorola device incorporated into the On-Q Home Wireless Access Point, complies with 47 CFR Parts 2 and 15 of the FCC Rules as a Class B digital device. This device complies with Part 15 of FCC Rules. Operation of the device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may cause undesired operation.

Wireless LAN Information
The On-Q Home Wireless Access Point product uses Direct Sequence Spread Spectrum (DSSS) radio technology. This product is designed to be inter-operable with any other wireless DSSS type product that complies with:
. The IEEE 802.11 Standard on Wireless LANs (Revision B), as defined and approved by the Institute of Electrical Electronics Engineers.
. The Wireless Fidelity (WiFi) certification as defined by the Wireless Ethernet Compatibility Alliance (WECA).

Wireless LAN and your Health
The WA840G, like other radio devices, emits radio frequency electromagnetic energy, but operates within the guidelines found in radio frequency safety standards and recommendations.

Restrictions on Use of Wireless Devices
In some situations or environments, the use of wireless devices may be restricted by the proprietor of the building or responsible representatives of the organization. For example, these situations may include:
. Using wireless equipment on board an airplane.
. Using wireless equipment in any environment where the risk of interference to other devices or services is perceived or identified as harmful.
If you are uncertain of the applicable policy for the use of wireless equipment in a specific organization or environment (such as airports), you are encouraged to ask for authorization to use the device prior to turning on the equipment.
The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this product, or the substitution or attachment of connecting cables and equipment other than specified by the manufacturer. Correction of interference caused by such unauthorized modification, substitution, or attachment is the responsibility of the user.
The manufacturer and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from failing to comply with these guidelines.

FCC Certification
The WA840G contains a radio transmitter and accordingly has been certified as compliant with 47 CFR Part 15 of the FCC Rules for intentional radiators. Products that contain a radio transmitter are labeled with FCC ID and the FCC logo.
Caution: Exposure to Radio Frequency Radiation.
To comply with the FCC RF exposure compliance requirements, the separation distance between the antenna and any person's body (including hands, wrists, feet and ankles) must be at least 20 cm (8 inches).

Canada - Industry Canada (IC)
The wireless radio of this device complies with RSS 210 and RSS 102 of Industry Canada.
This Class B digital device complies with Canadian ICES-003 (NMB-003).
Cet appareil numérique de la classe B respects toutes les exigences du Règlement sur le matériel brouilleur du Canada

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WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. THE UNIT MUST NOT BE EXPOSED TO DRIPPING OR SPLASHING WATER.

CAUTION: DO NOT OPEN THE UNIT. DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE INSTALLATION AND TROUBLESHOOTING INSTRUCTIONS. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION: THIS DEVICE MUST BE INSTALLED AND USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AS DESCRIBED IN THE USER DOCUMENTATION THAT COMES WITH THE PRODUCT.

WARNING: POSTPONE INSTALLATION UNTIL THERE IS NO RISK OF THUNDERSTORM OR LIGHTNING ACTIVITY IN THE AREA.

When using this device, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Read all of the instructions {listed here and/or in the user manual} before you operate this equipment.
- Give particular attention to all safety precautions.
- Retain the instructions for future reference.
- Comply with all warning and caution statements in the instructions.
- Observe all warning and caution symbols that are affixed to this equipment.
- Comply with all instructions that accompany this equipment.
- Avoid using this product during an electrical storm. There may be a risk of electric shock from lightning. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the power supply, and disconnect the CAT5e to the WAP at the POE. This will prevent damage to the product due to lightning and power surges. It is recommended that the customer install an AC surge protector in the AC outlet to which this device is connected. This is to avoid damaging the equipment by local lightning strikes and other electrical surges. A Data Surge Conditioning Unit is also available from On-Q Home (364598-01) to help protect the Ethernet connection from the POE to the WAP.
- Operate this product only from the type of power source indicated on the product's marking label.
- If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in safe operating condition.

Installation of this product must be in accordance with national wiring codes and conform to local regulations.

Place POE Inserter unit to allow for easy access when disconnecting the power cord/adapter of the device from the AC wall outlet.

Wipe the unit with a clean, dry cloth. Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the unit or use forced air to remove dust.

Do not directly cover the device, or block the airflow to the device with insulation or any other objects.

Keep the device away from excessive heat and humidity and keep the device free from vibration and dust.

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I. Introduction

Your On-Q Home Wireless Access Point (WAP) uses a radio transmission technology defined by the Institute of Electrical and Electronics Engineers (IEEE) called 802.11 or Wi-Fi (Wireless Fidelity). This standard is subdivided into distinct categories of speed and the frequency spectrum used, designated by the lower case letter after the standard. Your On-Q Home WAP supports both the 802.11b and 802.11g specifications.

The 802.11b specification transmits data rates up to 11 Mbps while the 802.11g specification transmits data rates up to 54 Mbps. These are theoretical speeds so your performance may vary. The radio waves radiate out in a donut-shaped pattern. The waves travel through walls and floors, but transmission power and distance are affected.

Both standards operate in the 2.4 GHz range, meaning other electrical appliances also might interfere with the WAP. Televisions, radios, microwave ovens, and 2.4 GHz cordless telephones are examples of devices that might interfere with the WAP. Thus, positioning your WAP where it encounters the least interference gains the greatest benefit to maintaining a quality connection. Typically, the best performance can be expected by positioning it in the ceiling at a central location on the top floor of the home.

Recommended Wireless Environment
The following information helps you to achieve the best wireless performance:

- Placing your base station in the physical center of your network is the premium location because the antenna radiates out the signal in all directions.
- Placing the unit in a higher location helps to disperse the signal cleanly, especially to receiving locations on upper stories.
- Direct line of sight achieves better performance, but obviously is not always achievable.
- Try to avoid placing the unit next to large solid or dense objects like walls, fireplaces, etc. This helps the signal penetrate more cleanly.
- Other wireless devices like televisions, radios, microwaves and 2.4 GHz cordless telephones can interfere with the signal. Keep devices away from the unit.
- Mirrors, especially silver-coated, negatively affect transmission performance.

Your On-Q WAP is powered over the single CAT5e cable that connects it to the service provider using a technology called Power Over Ethernet (POE). A power supply inserts power onto the CAT5e cable through an inserter module, and then this power is extracted for use at the WAP location. In this way, unsightly power cables are avoided at the WAP location.

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II. Product Overview

A. Features

- Compatibility with both 802.11g and 802.11b standards
- Wireless security using WPA, 802.1X Authentication, and Advanced Encryption Standard (AES)
- Wireless Distribution System (WDS) mode supporting peer-to-peer communication with other On-Q WAP units
- Firmware upgrades available to stay current with latest specification

B. Components Included

The On-Q Home WAP includes the following components (see *Figure 1*):

- WAP Assembly
- WAP Mounting Ring
- WAP Cover
- WAP 48VDC Power Supply with AC cord
- WAP Power Over Ethernet (POE) Inserter Module
- CAT5e Jumper Cable
- WAP Manual on CD
- WAP IS Sheet and User Guide

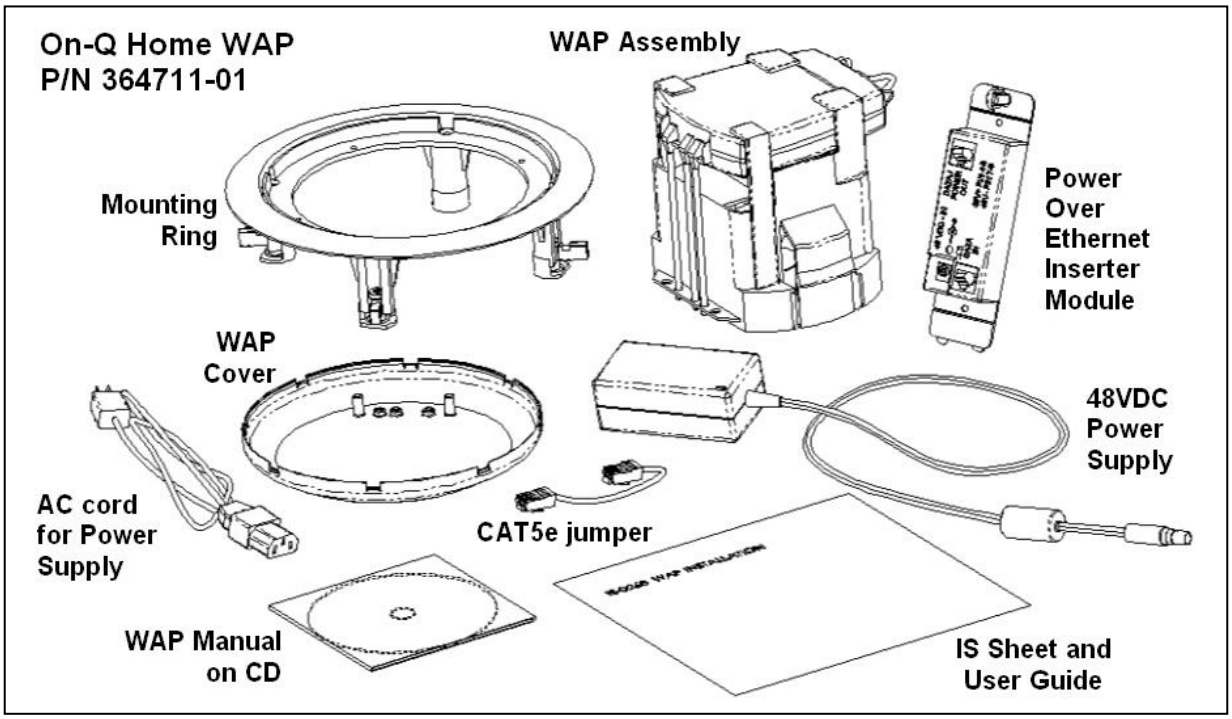

Figure 1

C. Replacement Parts

Replacement parts available for the On-Q Home WAP include:

- WAP 48 VDC Power Supply with AC cord (P/N 364723-01)
- WAP Power Over Ethernet (POE) Inserter Module (P/N 364719-01)
- WAP Cover (P/N 364724-01)

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D. Installation Environment

The preferred location for an installed On-Q Home WAP is in the ceiling of the top floor, centrally located in the home (see *Figure 2*).

If multiple WAPs are installed. they should be located centrally, in overlapping areas.

The WAP is connected to the On-Q Home POE Inserter Module by a single CAT5e cable.

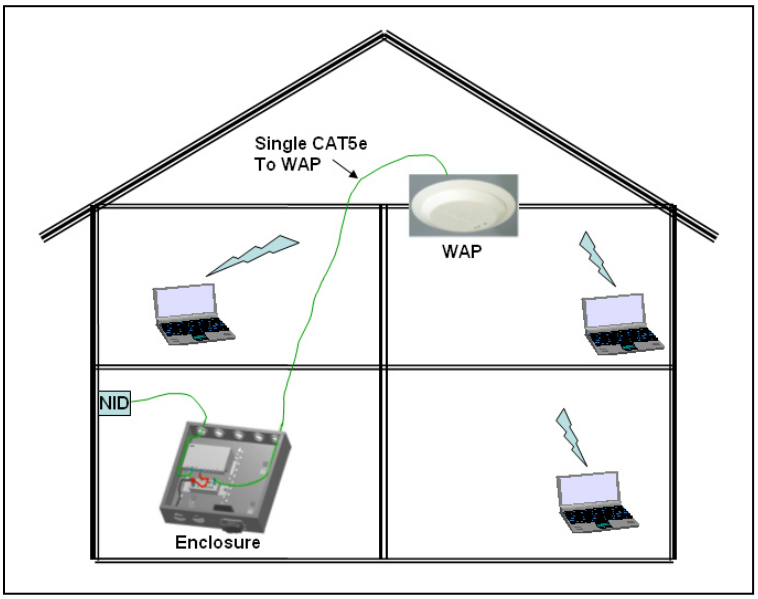

Figure 2

The POE Inserter Module may be located in an On-Q Home Enclosure (see *Figure 3*), or surface mounted. It provides both power and an Ethernet data connection for the WAP.

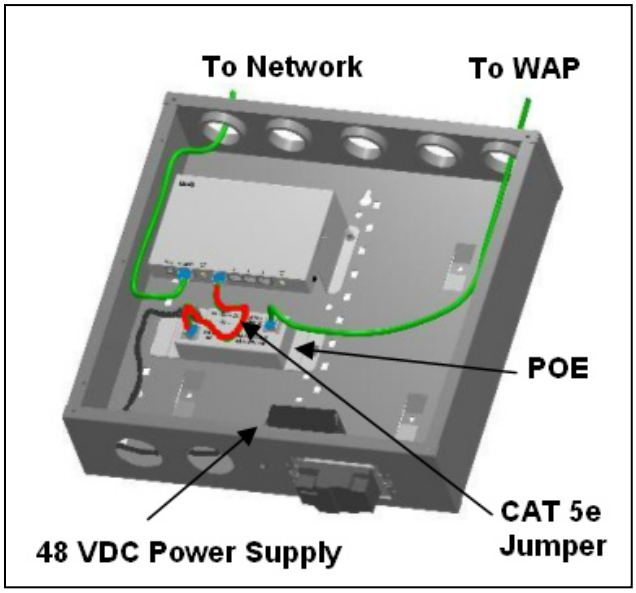

Figure 3

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1. **On-Q Home WAP Power Over Ethernet Inserter Module**
   Figure 4 shows the WAP POE Inserter Module components:

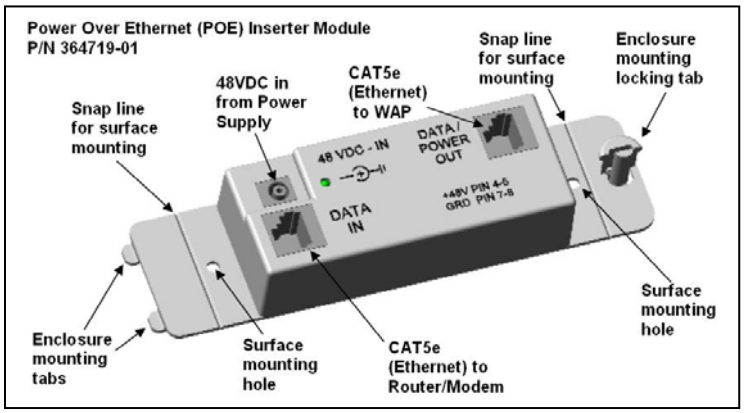

Figure 4

2. **WAP Assembly Installed in Ceiling**
   Figure 5 shows the WAP Assembly status indicators, which are visible from directly below when the WAP cover is properly installed:

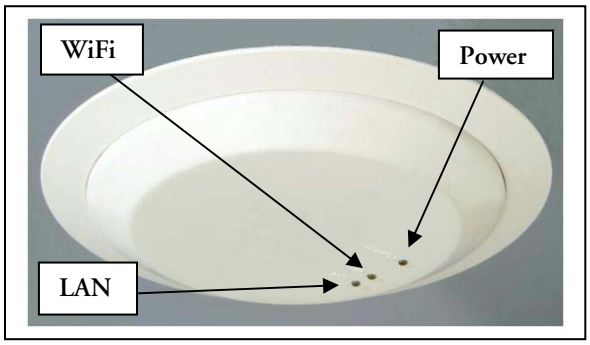

Figure 5

3. **Status Indicators Detailed Description:**

Power Indicator

ON **Green** The device is powered on and operating normally.
Blinking **Green** Firmware update is in progress.
Blinking/ON **Red** The power LED turns RED as soon as the reset button is depressed. If the reset button is held down for more than 5 seconds, the LED starts to blink during which the WAP's default user name, password and IP address will be restored. The LED then turns OFF until the reset button is released. The power LED keeps blinking RED if the firmware is corrupted indicating that the firmware needs to be restored.

WiFi Indicator

OFF **No Light** No mobile station or WAP has associated with this device.
ON **Red** The wireless interface has been disabled by the firmware.
ON/Blinking **Green** 802.11b/802.11g connection exists in this wireless domain/active traffic present.

LAN Indicator

OFF **No Light** No external Ethernet device has been attached and detected. The Ethernet link is down.
ON/Blinking **Amber** 10BaseT link detected/active traffic present.
ON/Blinking **Green** 100BaseT link detected/active traffic present.

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III. Configuration

The On-Q Home WAP is typically configured in one of two ways; (1) From a portable PC connected through the "Data In" port of the POE Inserter Module in the enclosure which is then connected through its "Data/Power Out" port to a CAT5e cable to the WAP, or (2) From a PC in one of the rooms of the house, connected through an outlet in the room to the enclosure where it is patched to the "Data In" port of the POE Inserter Module in the enclosure which is then connected through its "Data/Power Out" port to a CAT5e cable to the WAP (see *Figure 6*). In either case, the PC must have an Ethernet Network Interface Card to communicate with the WAP.

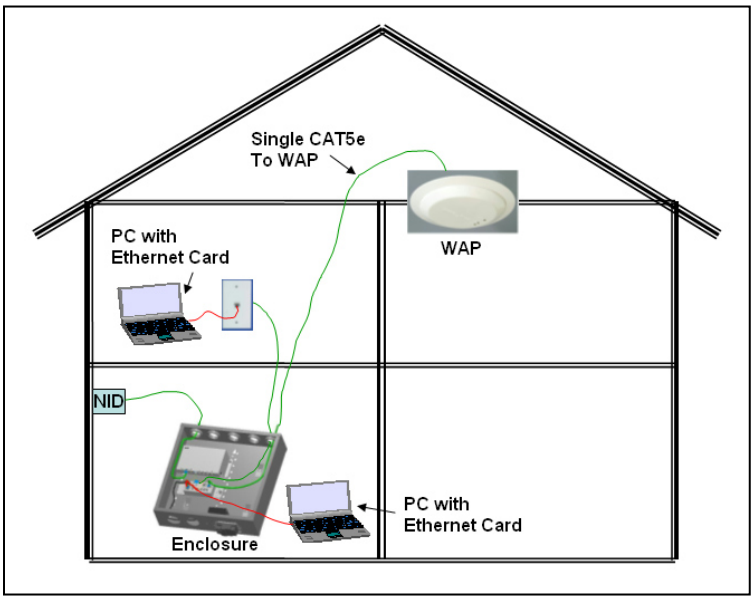

Figure 6

NOTE: The On-Q Home WAP can also be configured from a PC containing a Wireless Network Interface Card (Motorola WPCI810G wireless PCI card for your desktop PC, or Motorola WN825G wireless PCMCIA card for your laptop PC), but this is not recommended because it is not secure until you have configured security levels on the WAP. To connect the PC to the WAP through a wireless connection, ensure the PC.s wireless adapter SSID (Service Set Identifier) is set to the WAP's default setting of "motorola" appended with the last 3 characters of the Wireless MAC address (an example SSID: motorola345) and that no encryption is enabled.

NOTE: Before configuring the On-Q Home WAP, you must first temporarily configure your computer (with installed Ethernet Network Interface Card) to talk to the WAP. The WAP comes configured to a specific IP subnetwork (192.168.40.xxx) and its default IP address in that subnetwork is 192.168.40.1, so your PC's Ethernet Card must be assigned an IP address, (like 192.168.40.10), on that same subnetwork to talk to and configure the WAP. Giving the PC a specific IP address is also called assigning it a Static IP address, as compared to a Dynamic IP address that is typically assigned by a service provider through a process called Dynamic Host Configuration Protocol (DHCP).

NOTE: Before doing any PC IP Address re-configuration, make sure you first write down all of the current IP settings.

NOTE: After initially configuring the WAP, using that Static IP Address that you assign, you may need to return the PC's IP Address setting to be dynamically assigned by DHCP, if that is what the service provider requires. If you are using a router, you will also want to change your WAP's IP address and Gateway settings to be compatible with the router. These steps are covered at the end of this section.

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A. Configuring a Windows XP Ethernet Network Interface Card to talk to the WAP

This section includes information on configuring computers with the Windows XP operating system (differences for 98SE, ME and 2000 will be sited).

NOTE: This configuration assumes you have retained the default interface for Windows XP. If you are running the .Classic. interface, please note any sited differences for Windows 2000.

1. Click **Start**.

2. Select **Control Panel**.
   (For Windows 98SE, ME and 2000, select Settings first)

3. Double-click **Network and Dial-Up Connections**.
   (Double Click Network for Windows 98SE and ME and the Network Window is displayed)

4. Double-click **Local Area Connection**. The Local Area Connection Status window appears (see *Figure 7*).
   (***Step 4 is not applicable for Windows 98SE or ME***)

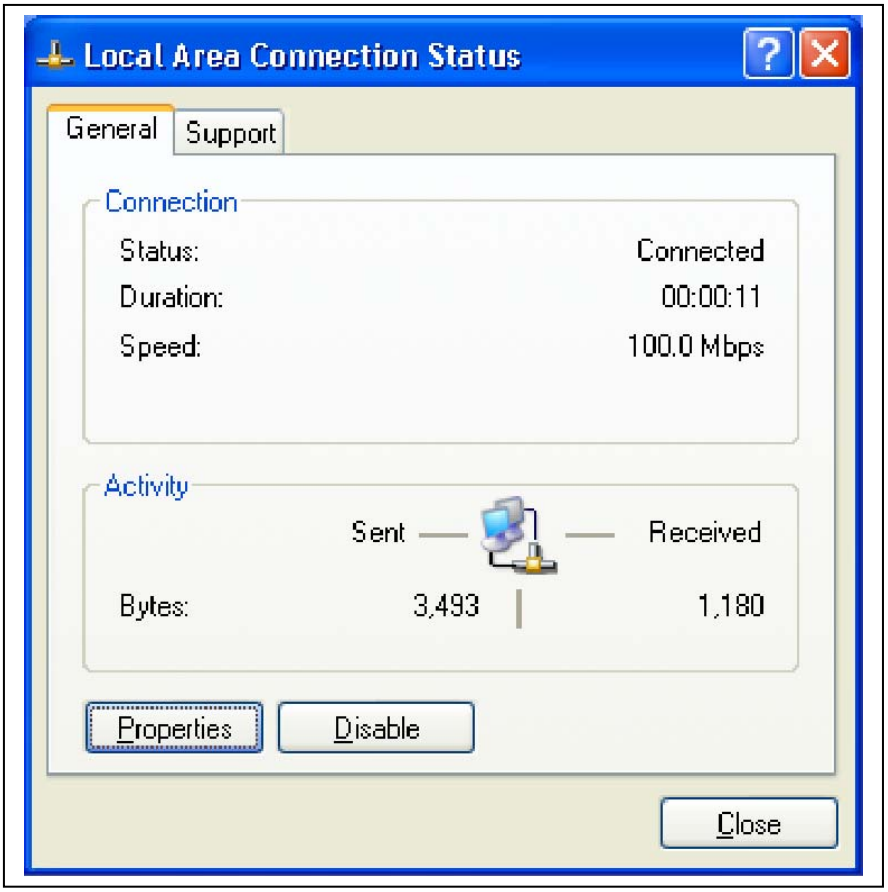

Figure 7

5. Click the **Properties** button to go to the *Local Area Connection Properties* screen.
   (***Step 5 is not applicable for Windows 98SE or ME***)

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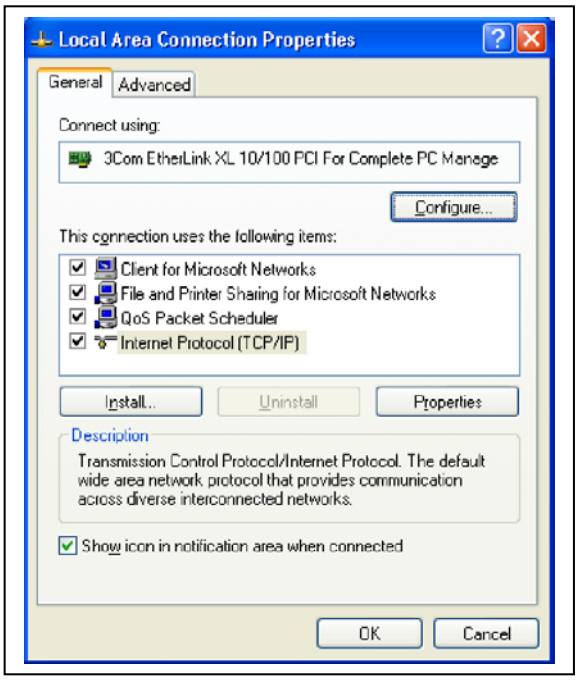

Figure 8

6. Ensure the box next to *Internet Protocol (TCP/IP)* is selected (see *Figure 8*).

7. Click to highlight **Internet Protocol** (**TCP/IP**) and click the **Properties** button to go to the *Internet Protocol (TCP/IP) Properties* screen.
(***For Windows 98SE or ME, from the Network Window's configuration tab, select the TCP/IP line the for the appropriate Ethernet adapter and Click Properties. From the TCP/IP Properties Window, Click on the IP Address tab.)***

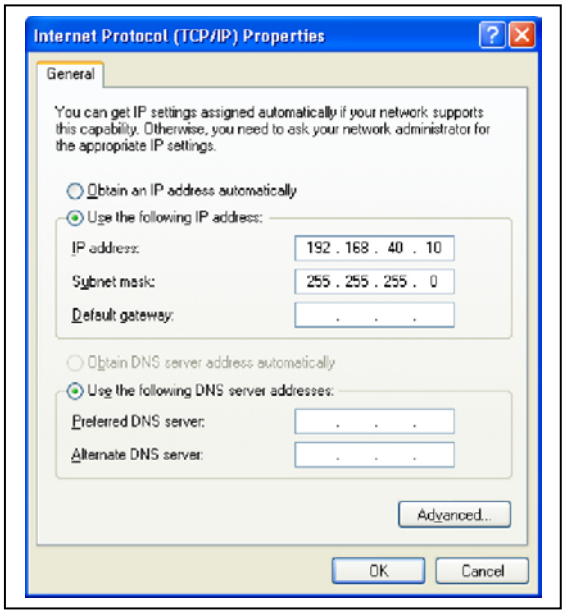
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 40 . 10
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Figure 9

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8. Click on "**Use the following IP Address:**" so that the circle is filled (see *Figure 9*).

9. Enter **192.168.40.10** into the IP Address field.

10. Enter **255.255.255.0** into the Subnet Mask field.

11. Click **OK** twice to exit and save your settings.
(***For Windows 98SE, ME, or 2000 you will have to restart the computer to save these settings).***

12 After the reboot (if appropriate), proceed to the next section to set up the WAP security settings.

B. Logging on to the WAP

1. Once the PC's Ethernet Interface Card is configured on the WAP's subnetwork, open your web browser and Enter into the URL field **http://192.168.40.1** (the WAP's default IP address) and press **Enter** (see *Figure 10*).

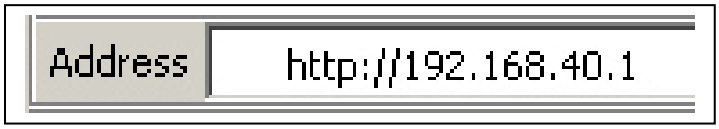

Figure 10

The login screen will appear (see *Figure 11*).

Figure 11

2. Enter the ***User ID***. The default factory setting is "admin", without the quotation marks.

3. Enter the ***Password***. The default factory setting is "motorola", without the quotation marks.

NOTE: Once you have logged in, for security reasons, you should change the User ID and Password. Be sure to document the new User ID and Password. For details, see next section.

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4. Click the **Log In** button to enter the WAP's Configuration Utility.

C. Wireless Security Setup

Follow these procedures to setup the correct security protocols for your WAP.

1. Select **Control Panel** > **Device Security** (see *Figure 12*).

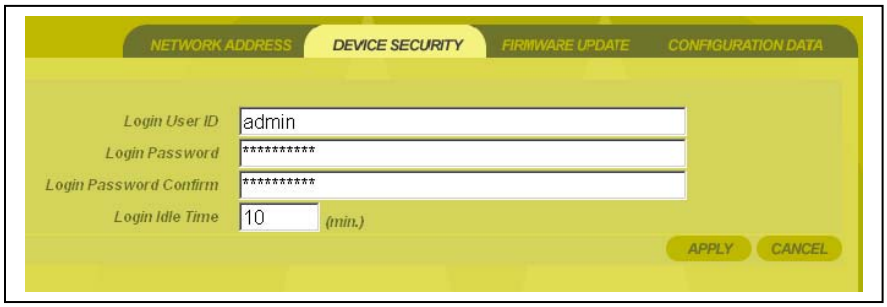

Figure 12

2. In the Login User ID field, enter in the desired ***Login User ID***. For strong security, select an ID that contains multiple of case-sensitive characters as well as numbers. It cannot be longer than 64 characters.

3. In the Login User Password field, enter in the desired ***Login Password***. For strong security, select a password that contains multiple case-sensitive characters as well as numbers and symbols like ._ +).. It cannot be longer than 64 characters.

4. Re-enter the same Password.

5. Click **Apply**.

6. Once the settings have been accepted, click **Restart** and log back into the *Configuration Utility* using your new User ID and Password.

7. Navigate to **Wireless** > **Basic** (see *Figure 13*).

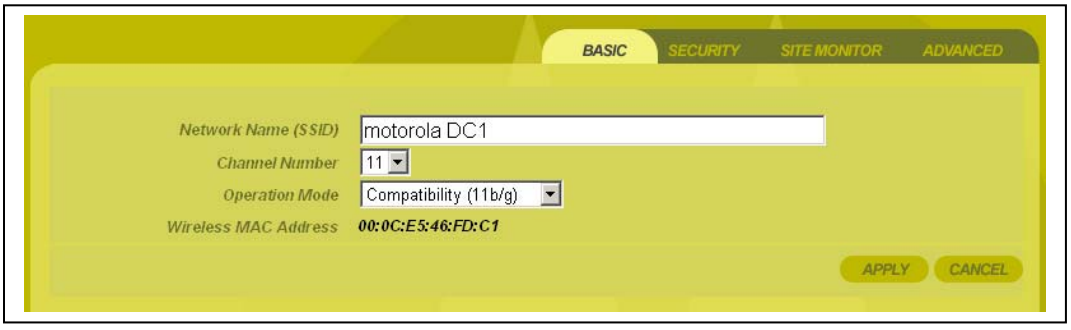

Figure 13

8. Change the *SSID* to a user-friendly name and click **Apply** .

NOTE: The Channel Number identifies the channel on which the WAP communicates, and each associated wireless client must use the same channel number in order to communicate (The default channel is 11).

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9. Navigate to **Wireless** > **Security** (see *Figure 14*).

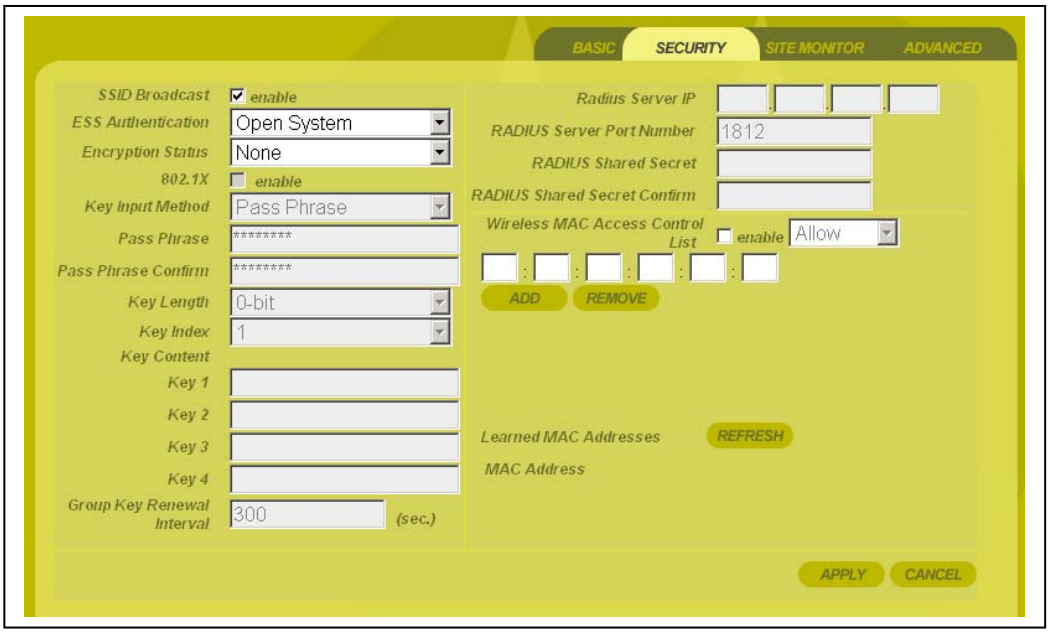

Figure 14

10. Select **WPA-PSK** from the drop down list of ESS Authentication.

11. Select **AES** from the drop down list of Encryption Status.

NOTE: The Extended Service Set (ESS) Authentication selection and Encryption Status selection determine how secure your WAP will be. You may have to match the security settings of your chosen Wireless Network Interface card to insure operability. The WAP is defaulted to Open System ESS (no authentication) and None (no security) for Encryption Status. The choices from least secure to most secure are:

Extended Service Set (ESS)	Encryption Status
Open System	None
Pre-Shared Key (PSK)	WEP64
WPA	WEP128
WPA-PSK	TKIP
	AES

NOTE: Higher encryption levels are inversely related to data transmission speed.

12. Enter a new **Pass Phrase** and again in **Pass Phrase Confirm**. Remember this Pass Phrase so that you can enter the same phrase for the Motorola client devices on your wireless LAN. Pass Phrase must be between 8 and 63 characters.

13. Click **Apply** and then **Restart**. Your wireless security configuration is now complete.

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D. Configuring the WAP to work with a Router

If you are connected to the Internet through a Router, you will want to change the IP Address of the WAP to also be a member of the Router's subnetwork. This will allow you to access the WAP at a future date, if you need to re-configure its security or login settings.

1. Navigate to the Control Panel > Network Access Screen (see *Figure 15).*

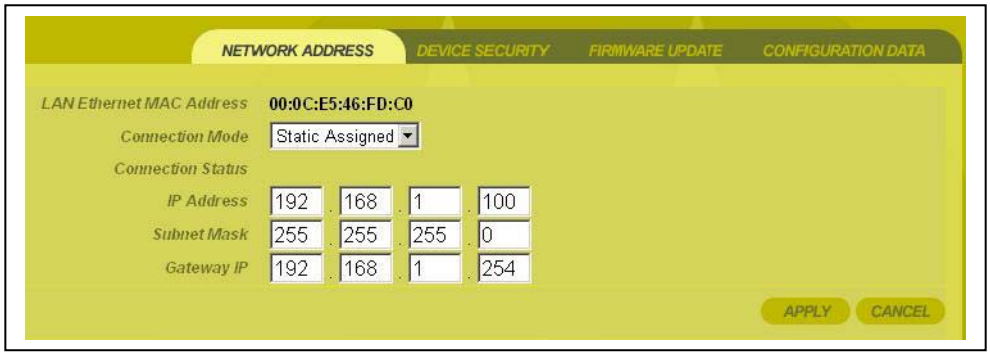

Figure 15

2. Enter **192.168.1.xxx (example subnetwork for the router)** into the IP Address field. Use an address (like **100**) that is higher than the number of PCs you are likely to attach to this router.

3. Enter **255.255.255.0** into the Subnet Mask field.

4. Enter **192.168.1.254** into the Gateway IP field and click Apply.

5. To verify that you can access the WAP at its new IP address, run the Ping command (**ping 192.168.1.100**) from any router attached PC.

E. Returning the PC used to configure the WAP to DHCP control

1. Click **Start.**

2. Select **Control Panel**.
   (For Windows 98SE, ME and 2000, select Settings first)

3. Double-click **Network and Dial-Up Connections**.
   (Double Click Network for Windows 98SE and ME and the Network Window is displayed)

4. Double-click **Local Area Connection**. The Local Area Connection Status window appears (see *Figure 16*). (***Step 4 is not applicable for Windows 98SE or ME***)

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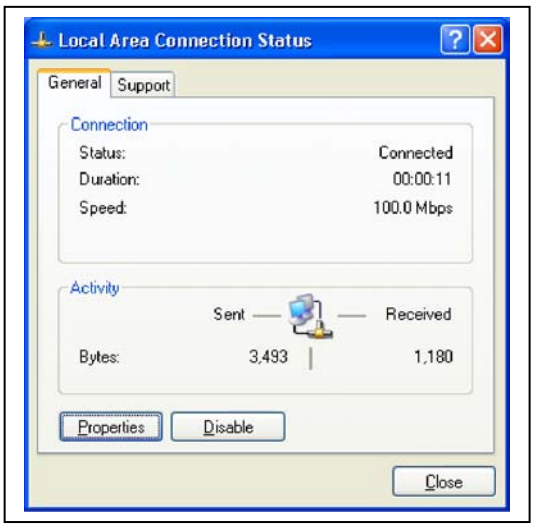

Figure 16

5. Click the **Properties** button to go to the *Local Area Connection Properties* screen. (***Step 5 is not applicable for Windows 98SE or ME***)

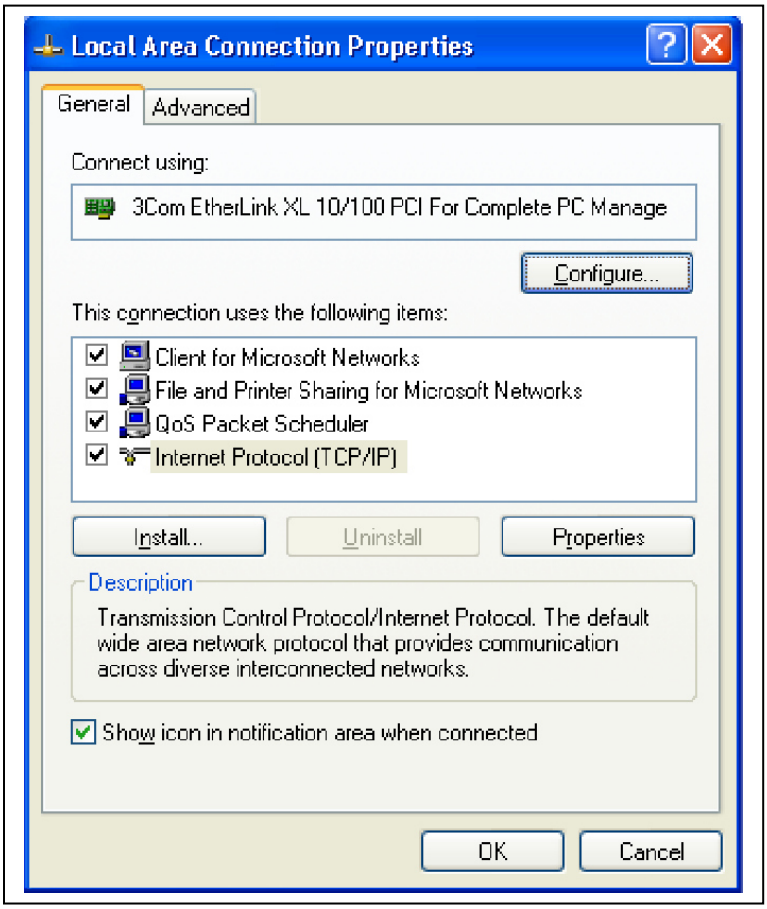

Figure 17

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6. Ensure the box next to *Internet Protocol (TCP/IP)* is selected (see *Figure 17*).

NOTE: Although this series of steps is used to re-configure the PC from direct WAP configuration back to its previous use as a DHCP controlled PC on the Router network, they can also be used to configure the WAP Network Interface Card for DHCP control by selecting the WAP NIC at the top of this screen.

7. Click to highlight **Internet Protocol** (**TCP/IP**) and click the **Properties** button to go to the *Internet Protocol (TCP/IP) Properties* screen.
(***For Windows 98SE or ME, from the Network Window's configuration tab, select the TCP/IP line the for the appropriate Ethernet adapter and Click Properties.*** From the TCP/IP Properties Window, Click on the IP Address tab.)

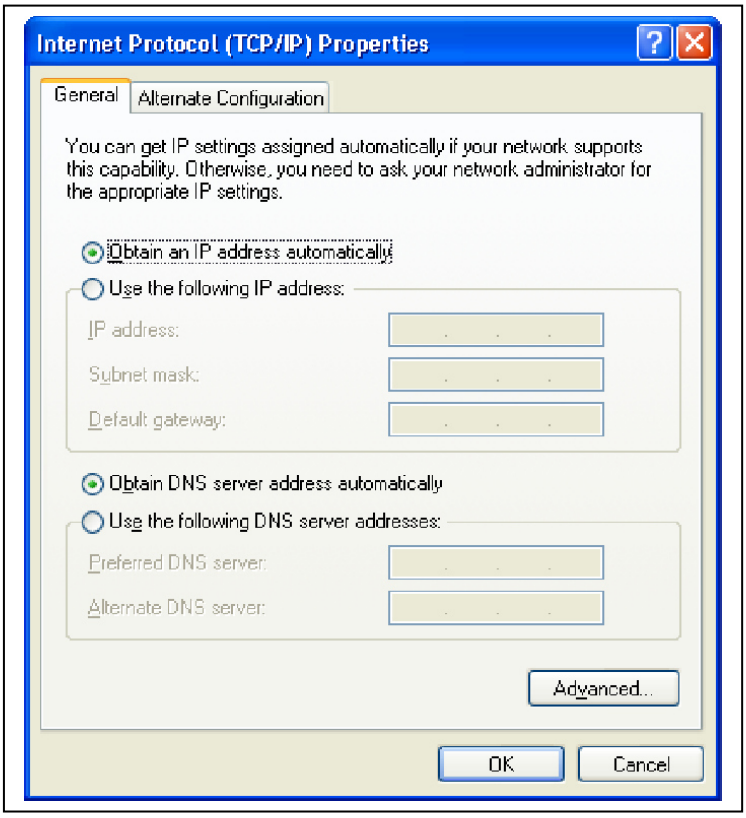
Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Figure 18

8. Select Obtain an IP address automatically (see *Figure 18*).

9. Click **OK** twice to exit and save your settings.
(***For Windows 98SE, ME, or 2000 you will have to restart the computer to save these settings).***

10. After the reboot (if appropriate), your PC should be now be ready for operation as before, directly through the Router, or through the WAP (if a Wireless NIC card was installed).

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IV. Firmware Updates

As with most complex products, at some time in the future you may be required to update your firmware. To find out what firmware level you are currently running, use your browser to access the IP address of the WAP, and after inserting your User ID and Password, click on the Log In button (see *Figure 19*).

Figure 19

A. Checking / Updating Firmware Level.

1. Navigate to the **Control Panel > Firmware Update** screen (see *Figure 20*).

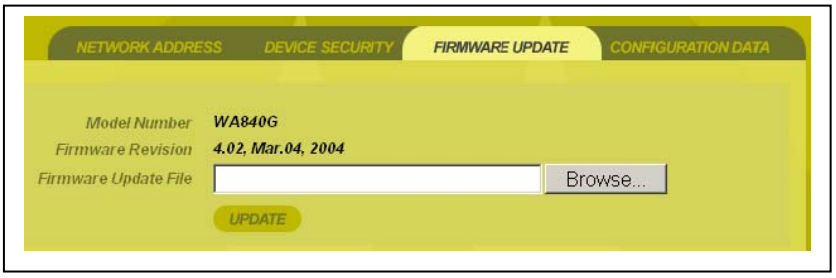

Figure 20

This screen (see *Figure 20*) enables you to verify/update the firmware (WAP's hardware control mechanism). Listed on this screen is the current version of the Model Number, Serial Number, and Firmware Number; enabling you to verify that you are running the most current version.

2. If you need to update the firmware, you must first get the latest firmware from this website www.motorola.com/broadband/networking.

3. Download the latest file to your computer.

4. To locate the file you downloaded, type the path to the file or click **Browse** and navigate to it.

5. Click **UPDATE** to update the WAP with the selected firmware file. The WAP will inform you that you successfully updated the unit.

6. Follow the prompts for restarting.

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V. Troubleshooting

This section will detail possible solutions to common problems that might occur in using the On-Q Wireless Access Point (WAP).

A. Contact Information

If you are unable to locate a solution here, please access our website at www.onqhome.com for the latest information. You can also reach us at 1-800-321-2343.

B. Hardware Situations

Some of the steps in this section may require removal of the WAP cover, or the WAP Assembly unit to verify cabling. Use a small pointed object, like a paper clip to remove the WAP cover by gently prying in the slot near the Power indicator (see *Figure 21).*

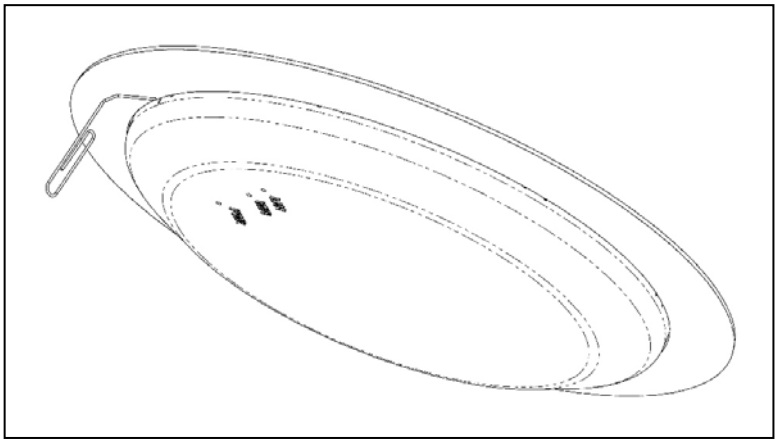

Figure 21

The WAP Assembly itself is removed by pressing the mounting ring clasp extensions toward each other (see *Figure 22 and Figure 23*) and carefully pulling the WAP Assembly out of the Mounting Ring.

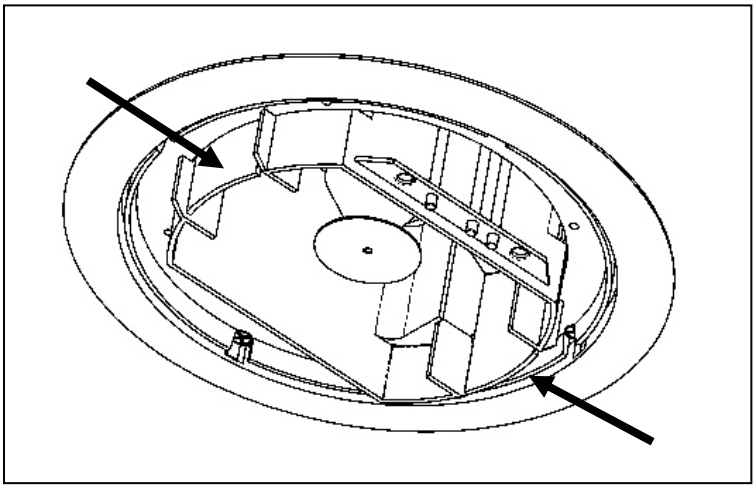

Figure 22

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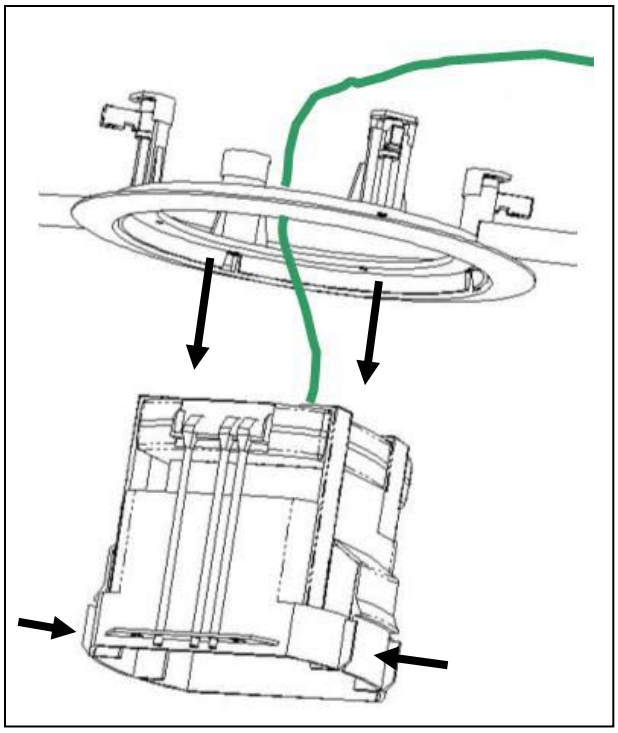

Figure 23

When the WAP has been removed from the mounting ring, the following connections can be verified (see *Figure 24*):

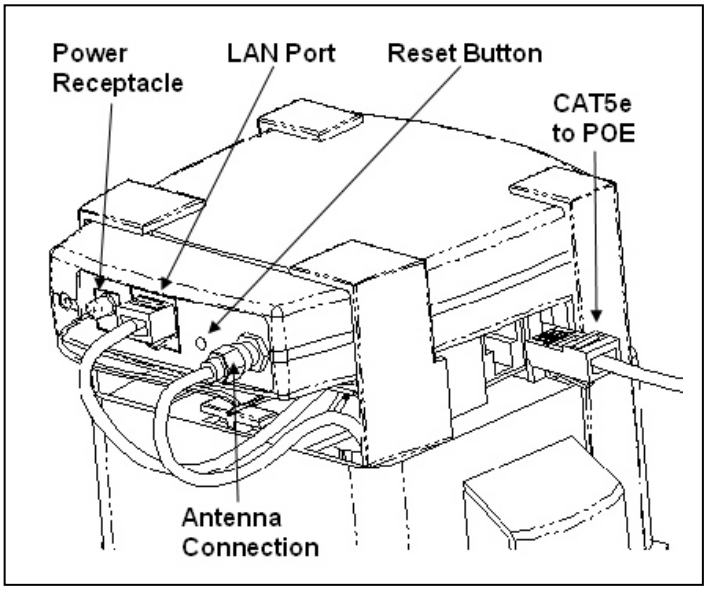

Figure 24

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Power Receptacle – Five volt DC power is extracted from the POE Extractor Module in the WAP Assembly (the 5VDC is derived from the 48VDC fed to the WAP Assembly over the single CAT5e from the POE Inserter Module in the Enclosure).

LAN Port – Ethernet data is extracted from the POE Extractor Module in the WAP Assembly. The LAN port supports either 10BASE-T or 100BASE-T transmission speeds as well as straight-through and crossover Ethernet cables (the Ethernet data is derived from the single CAT5e fed to the WAP Assembly from the POE Inserter Module in the Enclosure).

Reset Button - A dual-function button. A brief button press resets the WAP unit, while a longer button press resets the WAP unit to the default login settings. If the WAP is experiencing trouble connecting to the Internet, briefly press and release the Reset button to reset the WAP. The WAP will retain its configuration information during this reset operation. To reset the unit to the factory defaults, while the unit is powered, press and hold the Reset button for more than 10 seconds. This clears the WAP's user settings, including User ID, Password, IP Address, and Subnet Mask.

NOTE: Refer to the *Section III Configuration* for re-configuring the WAP.

Antenna Connection – Cable connects to the On-Q WAP antenna used for wireless connections.

NOTE: When initially removed from the box, a stub antenna will be connected to this connector. For better coverage, it should be removed and replaced by the On-Q WAP antenna cable.

After connections have been verified, or the unit has been reset, insure the CAT5e cable from the POE Inserter Module is connected, and push the unit through the mounting ring until the Mounting Ring Clasps snap into place (see *Figure 25*).

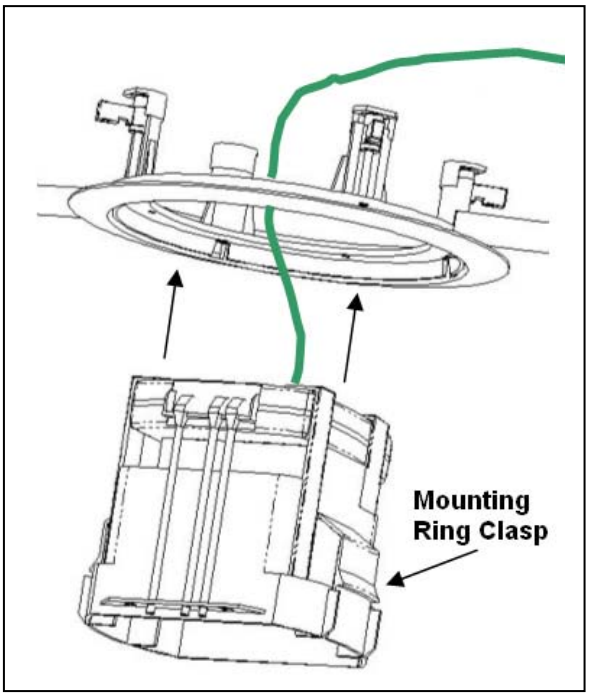

Figure 25

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Then install the center cover, making sure the tabs in the cover line up with the holes on the WAP Assembly. This will insure that the light pipes from the status lights on the WAP are properly aligned (see *Figure 26*).

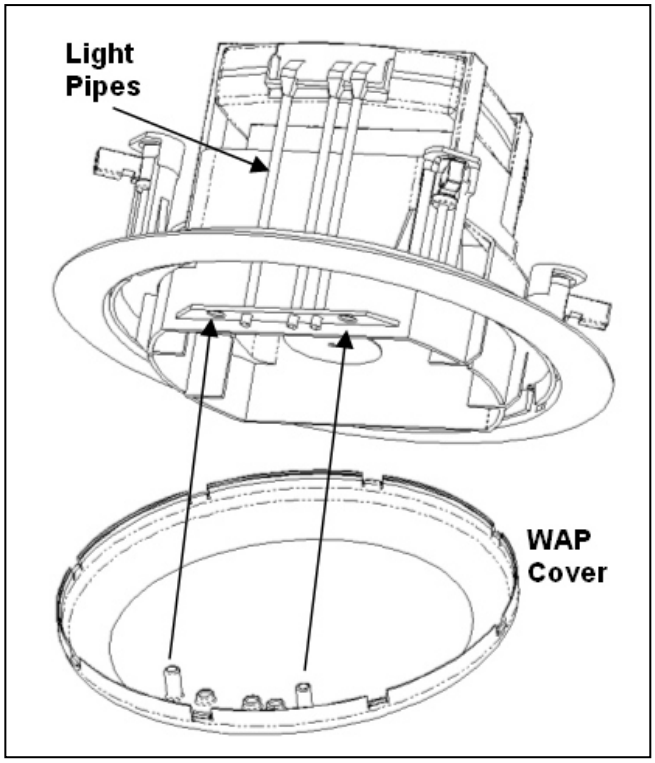

Figure 26

1. **My computer is experiencing difficulty connecting to the wireless network.**
   a. Ensure that your Wireless Access Point (WAP) is powered on and that the Wireless LED is lit.
   b. Ensure that your wireless adapter (PCI card, Notebook or Ethernet adapter) is installed correctly and is active.
   c. Ensure that your wireless adapter's radio signal is enabled and set to the same channel on which the WAP is communicating. Review your adapter's documentation for further instructions.
   d. Ensure that your wireless adapter for your PC and the WAP have the same security settings that will allow your computer to access the wireless network. See *Section III Configuration* for details on how to adjust security settings.
   e. Ensure that your WAP is within range of your router or is not behind an obstruction, for example metal structures will interfere with the signal, as will 2.4 GHz cordless phones, and microwaves.
   f. Ensure that your antenna is connected.

2. **My computer is experiencing difficulty in connecting to the WAP.**
   a. Check that all of your cable connections are tight and secured. This includes the cables to your modem, the router, the WAP and to your PC.
   b. Ensure that your LEDs are not lit Red or not at all. For further information about LED descriptions, see *Section II: Product Overview*.
   c. Ensure that you are using Ethernet cables and not telephone cables (see *Figure 27*). Ethernet cables use a wider RJ-45 style plug using 8 wires where telephone style plugs use the smaller RJ-11 (4 pin) or RJ-25 (6 pin) style plugs.

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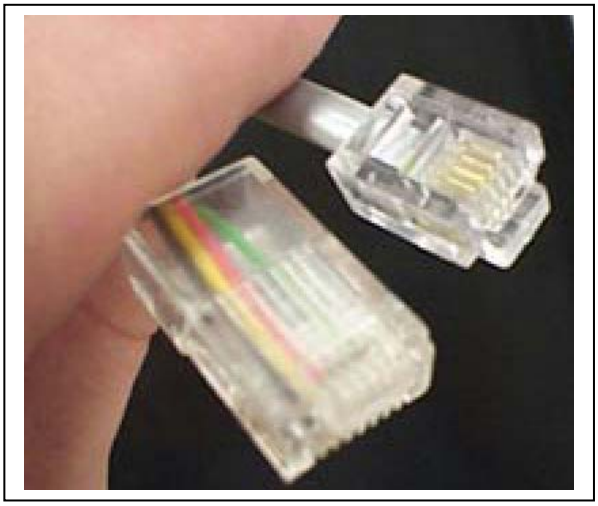

Figure 27

NOTE: The plug on the left is RJ-45; the plug on the right is RJ-11. Use only RJ-45.

d. Ensure that your Ethernet adapter is enabled. Check the System Tray at the bottom right of your display to see an icon that looks like a monitor. You can click on this to see the status of your Ethernet adaptor. Also in Control Panel > Network and Dial-Up Connections, you can examine the state of your Ethernet adaptor.

C. Software Situations

1. I would like to see if my Internet connection is alive.

a. For this, you will use the *ping* command to test the connection. Before attempting, ensure that **Obtain an IP address automatically** has been selected in the computer's settings and that you have an IP address assigned. Refer to *Section III: Configuration* , for further details.

b. Open a command prompt by clicking **Start** and **Run**.
*(For Windows 98 and ME, in the Open field, type **command** and press Enter or OK.)*
*(For Windows 2000 and XP, type **cmd** or, navigate using your **Start** button to **Programs>Accessories>Command Prompt**.)*

c. In the Command window, type **ipconfig**.
You should see an IP address for your network adapter similar to the following example:
IP Address. . . . . : 192.168.40.3
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.40.1

d. In the *Command* window, type **ping** followed by the WAP's ***IP address*** and press **Enter**. For example type: **ping 192.168.40.3**.
There is a good possibility that the Default Gateway's IP address is the WAP's IP address. You can verify the WAP's IP address on the Control Panel > Network Access screen.
If you receive a reply (the first word will be *Reply.*), then your computer is connected to the WAP. Proceed to *Step e*.
If you do NOT receive a reply, try from a different computer to verify that the first PC is not the cause of the problem.

e. In the *Command* window, type **ping** and your ***ISP's default gateway*** and press **Enter**. For example type: **ping 192.168.40.1**.

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If you receive a reply (It might look something like this: *Reply from 216.109.125.72.*), then your connection to the Internet is alive and well. You can verify the ISP's IP address at the Gateway IP field on the Control Panel > Network Access screen.

If you do NOT receive a reply, try from a different computer to verify that the first PC is not the cause of the problem.

f. If you cannot determine your ISP's default gateway, ping www.yahoo.com or another known web location.

2. I cannot access the Web-Based Configuration Utility for the WAP.

a. Verify your Ethernet connection to the WAP.
b. Verify that the IP address of the PC being used to configure the WAP is on the same network as the WAP's configuration IP address.
c. The IP address of your network adapter must be on the same network and not a duplicate of any others on the network (for example: 192.168.40.3 and using a subnet mask of 255.255.255.0 can be used to login to the WAP's default IP address of 192.168.40.1). Refer to *Section III: Configuration* on how to adjust the IP address for your PC.
d. Verify that you can ping the WAP on this IP address. In the *Command* window, type **ping** and your WAP's default ***IP address*** and press **Enter**. For example type: **ping 192.168.40.3.**
e. If you have changed the factory configured default IP address of the WAP, you will need to set your network adapter accordingly.
f. Verify you are entering the correct URL in the browser. The default is http://192.168.40.1.
g. If you think you have changed the IP address used to configure the WAP and cannot remember it, you must reset the unit back to factory defaults. To do this, press and hold the reset button for more the 5 seconds. This clears the WAP's user settings, including User ID, Password, IP Address, and Subnet mask.
h. Once the WAP is reset to factory default, re-verify the Ethernet connectivity and IP address issues.
i. Verify you are using the latest version of IE or Netscape. IE 5.2 and below are not supported.

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